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DELTA STEWARDSHIP COUNCIL

A California State Agency

November 23, 2015

Ms. Shelly Amrhein
Central Valley Flood Protection Board
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**RE: Notice of Preparation of a Draft Environmental Impact Report for the
Sacramento River Flood Control Project General Reevaluation, SCH #
2015102068**

Dear Ms. Amrhein:

Thank you for the opportunity to comment on the Notice of Preparation (NOP) of the Draft Environmental Impact Report (DEIR) for the Sacramento River Flood Control Project General Reevaluation Report (GRR). The Delta Stewardship Council (Council) staff appreciates the Central Valley Flood Protection Board's (CVFPB's) effort to coordinate with the United States Army Corps of Engineers (USACE) and other state and federal agencies to identify additional federal interests in restoring ecosystem function along the Sacramento River and improving flood risk reduction capabilities of the flood control system.

Through the Delta Reform Act, the Council was granted specific regulatory and appellate authority over certain activities that take place in whole or in part in the Delta and Suisun Marsh, which are referred to as "covered actions". The Council exercises that authority through development and implementation of the Delta Plan. State and local agencies are required to be consistent with the 14 regulatory policies of the Delta Plan when carrying out, approving, or funding a "covered action". The Delta Reform Act established a certification process for such covered actions to demonstrate their compliance with the Delta Plan (Water Code Section 85022).

Council staff is available to provide assistance to the CVFPB, as the CEQA lead agency, in determining whether the proposed alternatives of the GRR meet the statutory definition of a "covered action" and, as such, would require a certification of consistency with the Delta Plan. We encourage you to consult with Council staff early on in the development of the GRR to better understand the covered action process and how to ensure the project is consistent with the Delta Plan.

"Coequal goals" means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place."

– CA Water Code §85054

Comments on the NOP

Based on the available information from the NOP and the public scoping meeting in West Sacramento on November 3, 2015, we offer the following suggestions and recommendations for your consideration.

Adaptive Management and Best Available Science

Delta Plan Policy G P1 (23 California Code of Regulations [CCR] Section 5002) states that actions subject to Delta Plan regulations must document use of best available science. Detailed criteria for what constitutes best available science under the Delta Plan can be found in Appendix 1A of the Delta Plan (available at <http://bit.ly/DeltaPlanAppendix1A>). Best available science should be applied throughout the development, implementation and monitoring of the project.

Additionally, this policy calls for water management and ecosystem restoration projects to include adequate provisions for continued implementation of adaptive management, appropriate to the scope of the action. This requirement can be satisfied through the development of an adaptive management plan that is consistent with the framework described in Appendix 1B of the Delta Plan (available at <http://bit.ly/DeltaPlanAppendix1B>), as well as documentation of adequate resources to implement the proposed adaptive management process.

As outlined in Appendix 1B of the Delta Plan, project goals and objectives should be identified upfront as part of the project planning process. These goals and objectives should include components related to both compliance monitoring (to address specific permit requirements, such as water quality standards) as well as target outcomes for ecological functions (e.g., restored riparian forest provides improved nesting habitat for riparian birds). Both of these components are critical for a robust and effective evaluation on the performance of habitat projects.

Additionally, an important part of adaptive management is the use of conceptual models to help guide decision-making processes, inform development of the project's monitoring program, and assist with evaluating project performance. Without a conceptual framework to guide understanding and frame hypotheses on how certain management decisions will result in expected outcomes, it will be challenging to make informed management decisions.

Council staff, including staff from the Delta Science Program, can provide additional consultation to assist in preparation of documentation of use of best available science and adaptive management. We suggest including documentation of 1) where and how best available science was applied and 2) an adaptive management plan appropriate to the scope of the action, as appendices to the DEIR document in order to have it available for use in a consistency certification.

Mitigation Measures

Delta Plan Policy **G P1** (23 CCR Section 5002) also requires that actions not exempt from CEQA and subject to Delta Plan regulations must include applicable feasible

mitigation measures consistent with those identified in the Delta Plan Program EIR or substitute mitigation measures that are equally or more effective. Given the scope of the GRR, we especially recommend you refer to the Delta Plan's mitigation measures pertaining to biological and agricultural resources (See Mitigation Measures 4-1 through 4-5 and 7-1 to 7-2 in the Delta Plan's Mitigation and Monitoring Reporting Program available at <http://bit.ly/DeltaPlanMMRP>).

Please note that Delta Plan Program EIR Biological Resources Mitigation Measure 4-3 calls for loss of habitat for fish and wildlife species is to be compensated through preserving *in-kind* habitat, so mitigation not only needs to protect the same type of habitat lost through the project, but that the habitat mitigation must also preserve the same ecological functions (e.g., habitat impacts to channel margin habitat along major salmon migration corridors like the mainstem Sacramento should be mitigated nearby along the Sacramento River to ensure in-kind functions are preserved).

Habitat Restoration

Delta Plan Policy ER P2 (23 CCR Section 5006) calls for habitat restoration to be consistent with Appendix 3 of the Delta Plan, which is an excerpt from the 2011 Draft Ecosystem Restoration Program (ERP) Conservation Strategy. This excerpt lays out a framework for restoration of different habitat types within the Delta, including floodplains, tidal marsh, and subsided Delta lands and deep open-water areas.

For restoration of seasonal floodplains, the draft ERP Conservation Strategy raises the following two cautions: 1) restoration must incorporate as much natural connection with the river as possible to reduce fish stranding, and deep drainage canals and other unnatural scour holes deeper than a couple feet should be removed; and 2) since periodic wetting and drying of seasonal floodplains make these areas particularly prone to methylation of mercury, floodplain restoration activities should include investigation and implementation of best management practices to control methylmercury production and transport. Similarly, the ERP Conservation Strategy identifies a few concerns regarding restoration of tidal wetlands in the Delta, including the potential for restored marsh to be colonized by non-native species (e.g., non-native submerged aquatic vegetation favored by non-native centrarchid fish, which prey on native fish), and for the potential for restoration of intertidal habitats to increase methylation of mercury in sediments. Please take these concerns into consideration when evaluating the impacts of different habitat restoration alternatives for the DEIR.

Delta Plan Policy ER P3 (23 CCR Section 5007) states that within the priority habitat restoration areas depicted in Appendix 5 of the Delta Plan, adverse impacts to the opportunity to restore habitat must be avoided or mitigated. There are six priority habitat restoration areas identified in the Delta Plan, including the Yolo Bypass and the Cache Slough Complex. The Bureau of Reclamation, in coordination with DWR and the California Natural Resources Agency, is currently developing a suite of projects within the Yolo Bypass. These projects will create seasonal floodplain habitat and improve adult fish passage in order to fulfill requirements under the 2009 NMFS Biological

Opinion. Preliminary proposals under this planning effort include notching the Fremont Weir to facilitate more frequent inundation of the Yolo Bypass at a wider range of Sacramento River flow stages. We encourage that the alternatives developed for the Sacramento River GRR and DEIR be compatible with and/or facilitate these proposed plans for the Yolo Bypass.

Delta Plan Policy ER P4 (23 CCR Section 5008) states, “Levee projects must evaluate and where feasible incorporate alternatives, including the use of setback levees, to increase floodplains and riparian habitat.” This policy also requires the evaluation of setback levees in several areas throughout the Delta including along the Sacramento River between Freeport and Walnut Grove, Steamboat Slough, Sutter Slough, and the urban levees in the cities of West Sacramento and Sacramento which are areas included in the GRR plan area.

Council staff recently released a public draft of its Levee-Related Habitat Review (LRHR), which assessed the effectiveness of different habitat improvement options associated with levee projects in the Delta and nearby upstream areas to benefit native species. This draft report is currently available at <http://bit.ly/PublicDraftLRHR>. One key lesson learned from the review is that properly designed waterside planting benches can provide beneficial nearshore rearing habitat for juvenile salmonids; however these benches need to be specifically designed to create multiple depths of near-shore bathymetry, otherwise their benefits for juvenile salmonids are limited to a narrow range of river flows (i.e., avoid designing waterside planting benches to provide aquatic habitat at a certain depth, since high river flows may drown out the bench habitat while conversely low river flows may dewater the channel margin habitat). Another insight in the LRHR is that in the Delta, low to medium densities of large woody material can provide nearshore refugia for migrating juvenile salmon, however high densities of large woody material can be detrimental to juvenile salmon as they often harbor non-native warm-water predatory fish.

Delta Plan Policy ER P5 (23 CCR Section 5009) calls for the potential for new introductions of or improved habitat conditions for nonnative invasive species be avoided or mitigated in a way that protects the ecosystem. Analysis on this matter should address both nonnative wildlife species, as well as terrestrial and aquatic weeds.

DWR’s Invasive Plant Management Plan (Appendix E) for the Central Valley Flood Protection Plan (CVFPP) Conservation Strategy provides a good framework for addressing invasive plant issues at a large-scale programmatic level. We recommend emulating DWR’s approach in identifying which invasive plants are expected to be the most problematic within the Sacramento River GRR plan area.

When addressing the impacts of invasive species in the DEIR, we suggest you incorporate the Delta Plan Program EIR’s **Biological Resources Mitigation Measure 4-1**. This mitigation measures calls for an invasive species management plan to be developed and implemented for any projects that could lead to introduction or facilitation

of invasive species establishment. This plan must ensure that invasive plant species and populations are kept below preconstruction abundance and distribution levels and be based on best available science and developed in consultation with Department of Fish and Wildlife and local experts (e.g., UC Davis, California Invasive Plant Council).

This mitigation requirement also calls for the plan to include the following elements:

- Nonnative species eradication methods (if eradication is feasible)
- Nonnative species management methods
- Early detection methods
- Notification requirements
- Best management practices for preconstruction, construction, and post construction periods
- Monitoring, remedial actions and reporting requirements
- Provisions for updating the target species list over the lifetime of the project as new invasive species become potential threats to the integrity of the local ecosystems

Delta Plan Recommendation ER R2 calls for the prioritization and implementation of habitat restoration projects with the Delta Plan's six priority habitat restoration area. The Delta Plan's goal for the Yolo Bypass includes enhancing the ability of the Bypass to flood more frequently to provide benefits for migratory fish and the goal for the Cache Slough Complex is to create broad nontidal, freshwater emergent-plant-dominated wetlands that grade into tidal wetland and associated subtidal habitats.

Land Use Conflicts

Delta Plan Policy DP P2 (23 CCR Section 5011) states that "water management facilities, ecosystem restoration, and flood management infrastructure must be sited to avoid or reduce conflicts with existing uses or those uses described or depicted in city and county general plans for their jurisdictions or spheres of influence when feasible, considering comments from local agencies and the Delta Protection Commission."

If agricultural lands within the Delta are proposed to be converted as a result of flood risk reduction or ecosystem restoration measures under alternatives for the Sacramento River GRR, we recommend that you work closely with the appropriate Delta counties to ensure that adequate mitigation is provided for these impacts, as well as consult with the Delta Protection Commission. Additionally, for any alternatives that would involve impacts to agricultural lands, we suggest incorporating Delta Plan **Agricultural and Forestry Resources Mitigation Measure 7-1** in the DEIR. This mitigation measure calls for projects that result in permanent conversion of farmland to preserve in perpetuity other farmland through acquisition of an agricultural conservation easement, or contributing funds to a land trust or other entity quality to preserve farmland in perpetuity (at a target acreage ratio of 1:1).

Flood Risk Reduction

In the DEIR, please evaluate if the proposed alternatives may have a positive or negative cumulative impact to areas upstream and downstream of the study area (e.g.,

discharges from the Yolo Bypass may have significant impacts to other parts of the Delta) and what the expected post-project risk level is for the region.

In addition, the following includes Delta Plan policies that the project team should be aware of and the proposed alternatives should be consistent with:

Delta Plan Policy RR P1 (23 CCR Section 5012) calls for the prioritization of State investments in Delta flood risk management, including levee operation, maintenance and improvements. This policy includes interim priorities categorized as specific goals to guide budget and funding allocation for levee improvements and to assist the California Department of Water Resources (DWR) and the CVFPB in achieving a balance in funding the various goals. To achieve consistency with the Delta Plan, the State of California's investment in Delta flood risk management (i.e., the State's cost share for the project) must be consistent with Delta Plan Policy RR P1. The Council is currently in the process of updating the interim priorities in the Delta Plan through its work on the Delta Levees Investment Strategy (<http://deltacouncil.ca.gov/delta-levees-investment-strategy>). Once the Delta Levees Investment Strategy is completed RR P1 will be revised to reflect an updated investment strategy for the Delta's levees.

Delta Plan Policy RR P3 (23 CCR Section 5014) currently states that no encroachment shall be allowed or constructed in a floodway unless it can be demonstrated by appropriate analysis that the encroachment will not unduly impede the free flow of water in the floodway or jeopardize public safety.

Delta Plan Policy RR P4 (23 CCR Section 5015) states that no encroachment shall be allowed or constructed in the floodplain of the Yolo Bypass within the Delta unless it can be demonstrated by appropriate analysis that the encroachment will not have a significant adverse impact on floodplain values and functions.

Other comments

Regulatory Setting. Council staff requests that the Delta Plan, including its policies and recommendations, be acknowledged in the DEIR's description of the regulatory setting for each applicable resource section.

Inconsistencies with the Delta Plan. The DEIR should discuss any inconsistencies between the proposed project and the Delta Plan, as required by 15125(d) of the California Environmental Quality Act (CEQA) Guidelines. Please note that the CEQA Guidelines' Appendix G states that a project that is inconsistent with any applicable land use plan, policy, or regulation may result in a finding of significant impact on biological resources.

Shelly Amrhein, Central Valley Flood Protection Board

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Final Remarks

Council staff welcomes any opportunities to coordinate with CVFPB staff as the DEIR for the GRR is developed. If you have questions or would like to discuss the comments presented here, please feel free to contact my staff Daniel Huang at

Daniel.Huang@deltacouncil.ca.gov for the questions regarding the ecosystem restoration and Delta Plan consistency or You Chen (Tim) Chao (916-445-0143) at YouChen.Chao@deltacouncil.ca.gov for questions regarding flood risk reduction.

Sincerely,

A handwritten signature in blue ink that reads "Cindy Messer". The signature is written in a cursive, flowing style.

Cindy Messer
Deputy Executive Officer
Delta Stewardship Council

cc Dan Artho, U.S. Army Corps of Engineers, Sacramento District
Kris Tjernell, California Natural Resources Agency